



SEQUENCE LISTING

#9

<110> Bactens Serum Institut

<120> Hybrids of M. tuberculosis Antigens

<130> 670001-2002.5

<140> 09/805,427

<141> 2001-03-13

<160> 12

<170> PatentIn version 3.0

<210> 1

<211> 95

<212> PRT

<213> Mycobacterium tuberculosis

<400> 1

Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile Glu Ala Ala Ala Ser
1 5 10 15

Ala Ile Gln Gly Asn Val Thr Ser Ile His Ser Leu Leu Asp Glu Gly
20 25 30

Lys Gln Ser Leu Thr Lys Leu Ala Ala Ala Trp Gly Gly Ser Gly Ser
35 40 45

Glu Ala Tyr Gln Gly Val Gln Gln Lys Trp Asp Ala Thr Ala Thr Glu
50 55 60

Leu Asn Asn Ala Leu Gln Asn Leu Ala Arg Thr Ile Ser Glu Ala Gly
65 70 75 80

Gln Ala Met Ala Ser Thr Glu Gly Asn Val Thr Gly Met Phe Ala
85 90 95

<210> 2

<211> 325

<212> PRT

<213> Mycobacterium tuberculosis

<220>

<221> SIGNAL

<222> (1)..(40)

<400> 2

Met Thr Asp Val Ser Arg Lys Ile Arg Ala Trp Gly Arg Arg Leu Met
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Ile Gly Thr Ala Ala Ala Val Val Leu Pro Gly Leu Val Gly Leu Ala
20 25 30

Gly 35	Gly 40	Ala 45	Leu 50	Pro 55	Val 60	Thr 65	Ala 70	Gly 75	Arg 80	Ser 85	Phe 90	Met 95	Pro 100	Val 105	Leu 110	Thr 115	Ala 120	Gly 125	Arg 130	Ser 135	Phe 140	Met 145	Pro 150	Val 155	Leu 160	Thr 165	Ala 170	Gly 175	Arg 180	Ser 185	Phe 190	Met 195	Pro 200	Val 205	Leu 210	Thr 215	Ala 220	Gly 225	Arg 230	Ser 235	Phe 240	Met 245	Pro 250	Val 255	Leu 260	Thr 265	Ala 270	Gly 275	Arg 280	Ser 285	Phe 290	Met 295	Pro 300	Val 305	Leu 310	Thr 315	Ala 320	Gly 325
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<210> 3
<211> 404
<212> PRT
<213> Artificial Sequence

<220>
<223> Recombinant Fusion protein Ag85B-ESAT-6

<400> 3

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Ile	Glu	Gly	Arg	Ser	Phe	Ser	Arg	Pro	Gly	Leu	Pro	Val	Glu	Tyr	Leu
			20					25					30		
Gln	Val	Pro	Ser	Pro	Ser	Met	Gly	Arg	Asp	Ile	Lys	Val	Gln	Phe	Gln
		35					40				45				
Ser	Gly	Gly	Asn	Asn	Ser	Pro	Ala	Val	Tyr	Leu	Leu	Asp	Gly	Leu	Arg
	50					55					60				
Ala	Gln	Asp	Asp	Tyr	Asn	Gly	Trp	Asp	Ile	Asn	Thr	Pro	Ala	Phe	Glu
65					70				75						80
Trp	Tyr	Tyr	Gln	Ser	Gly	Leu	Ser	Ile	Val	Met	Pro	Val	Gly	Gly	Gln
			85						90					95	
Ser	Ser	Phe	Tyr	Ser	Asp	Trp	Tyr	Ser	Pro	Ala	Cys	Gly	Lys	Ala	Gly
			100					105					110		
Cys	Gln	Thr	Tyr	Lys	Trp	Glu	Thr	Phe	Leu	Thr	Ser	Glu	Leu	Pro	Gln
		115					120					125			
Trp	Leu	Ser	Ala	Asn	Arg	Ala	Val	Lys	Pro	Thr	Gly	Ser	Ala	Ala	Ile
	130					135					140				
Gly	Leu	Ser	Met	Ala	Gly	Ser	Ser	Ala	Met	Ile	Leu	Ala	Ala	Tyr	His
145					150					155					160
Pro	Gln	Gln	Phe	Ile	Tyr	Ala	Gly	Ser	Leu	Ser	Ala	Leu	Leu	Asp	Pro
				165					170					175	
Ser	Gln	Gly	Met	Gly	Pro	Ser	Leu	Ile	Gly	Leu	Ala	Met	Gly	Asp	Ala
			180					185					190		
Gly	Gly	Tyr	Lys	Ala	Ala	Asp	Met	Trp	Gly	Pro	Ser	Ser	Asp	Pro	Ala
		195					200					205			
Trp	Glu	Arg	Asn	Asp	Pro	Thr	Gln	Gln	Ile	Pro	Lys	Leu	Val	Ala	Asn
	210					215					220				
Asn	Thr	Arg	Leu	Trp	Val	Tyr	Cys	Gly	Asn	Gly	Thr	Pro	Asn	Glu	Leu
225					230					235					240
Gly	Gly	Ala	Asn	Ile	Pro	Ala	Glu	Phe	Leu	Glu	Asn	Phe	Val	Arg	Ser
			245						250					255	

Ser Asn Leu Lys Phe Gln Asp Ala Tyr Asn Ala Ala Gly Gly His Asn
260 265 270

Ala Val Phe Asn Phe Pro Pro Asn Gly Thr His Ser Trp Glu Tyr Trp
275 280 285

Gly Ala Gln Leu Asn Ala Met Lys Gly Asp Leu Gln Ser Ser Leu Gly
290 295 300

Ala Gly Lys Leu Ala Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile
305 310 315 320

Glu Ala Ala Ala Ser Ala Ile Gln Gly Asn Val Thr Ser Ile His Ser
325 330 335

Leu Leu Asp Glu Gly Lys Gln Ser Leu Thr Lys Leu Ala Ala Ala Trp
340 345 350

Gly Gly Ser Gly Ser Glu Ala Tyr Gln Gly Val Gln Gln Lys Trp Asp
355 360 365

Ala Thr Ala Thr Glu Leu Asn Asn Ala Leu Gln Asn Leu Ala Arg Thr
370 375 380

Ile Ser Glu Ala Gly Gln Ala Met Ala Ser Thr Glu Gly Asn Val Thr
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Gly Met Phe Ala

<210> 4

<211> 403

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<213> Artificial Sequence

<220>

<223> Recombinant Fusion protein ESAT-6-Ag85B

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Met Ala Thr Val Asn Arg Ser Arg His His His His His His His
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Ile Glu Gly Arg Ser Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile
20 25 30

Glu Ala Ala Ala Ser Ala Ile Gln Gly Asn Val Thr Ser Ile His Ser
35 40 45

Leu Leu Asp Glu Gly Lys Gln Ser Leu Thr Lys Leu Ala Ala Ala Trp
50 55 60

Gly Gly Ser Gly Ser Glu Ala Tyr Gln Gly Val Gln Gln Lys Trp Asp
65 70 75 80

Ala Thr Ala Thr Glu Leu Asn Asn Ala Leu Gln Asn Leu Ala Arg Thr

			85					90					95				
Ile	Ser	Glu	Ala 100	Gly	Gln	Ala	Met	Ala 105	Ser	Thr	Glu	Gly	Asn 110	Val	Thr		
Gly	Met	Phe 115	Ala	Lys	Leu	Phe	Ser 120	Arg	Pro	Gly	Leu	Pro 125	Val	Glu	Tyr		
Leu	Gln	Val	Pro	Ser	Pro	Ser 135	Met	Gly	Arg	Asp	Ile 140	Lys	Val	Gln	Phe		
Gln 145	Ser	Gly	Gly	Asn	Asn 150	Ser	Pro	Ala	Val	Tyr 155	Leu	Leu	Asp	Gly	Leu 160		
Arg	Ala	Gln	Asp	Asp 165	Tyr	Asn	Gly	Trp 170	Asp	Ile	Asn	Thr	Pro	Ala 175	Phe		
Glu	Trp	Tyr	Tyr 180	Gln	Ser	Gly	Leu	Ser 185	Ile	Val	Met	Pro	Val 190	Gly	Gly		
Gln	Ser	Ser 195	Phe	Tyr	Ser	Asp	Trp 200	Tyr	Ser	Pro	Ala	Cys 205	Gly	Lys	Ala		
Gly	Cys 210	Gln	Thr	Tyr	Lys	Trp 215	Glu	Thr	Phe	Leu	Thr 220	Ser	Glu	Leu	Pro		
Gln 225	Trp	Leu	Ser	Ala	Asn 230	Arg	Ala	Val	Lys	Pro 235	Thr	Gly	Ser	Ala	Ala 240		
Ile	Gly	Leu	Ser	Met 245	Ala	Gly	Ser	Ser	Ala 250	Met	Ile	Leu	Ala	Ala 255	Tyr		
His	Pro	Gln	Gln 260	Phe	Ile	Tyr	Ala	Gly 265	Ser	Leu	Ser	Ala	Leu 270	Leu	Asp		
Pro	Ser	Gln	Gly	Met	Gly	Pro	Ser 280	Leu	Ile	Gly	Leu	Ala 285	Met	Gly	Asp		
Ala 290	Gly	Gly	Tyr	Lys	Ala	Ala 295	Asp	Met	Trp	Gly	Pro 300	Ser	Ser	Asp	Pro		
Ala 305	Trp	Glu	Arg	Asn	Asp 310	Pro	Thr	Gln	Gln	Ile 315	Pro	Lys	Leu	Val	Ala 320		
Asn	Asn	Thr	Arg	Leu 325	Trp	Val	Tyr	Cys	Gly 330	Asn	Gly	Thr	Pro	Asn 335	Glu		
Leu	Gly	Gly	Ala 340	Asn	Ile	Pro	Ala	Glu 345	Phe	Leu	Glu	Asn	Phe 350	Val	Arg		
Ser	Ser	Asn 355	Leu	Lys	Phe	Gln	Asp 360	Ala	Tyr	Asn	Ala	Ala 365	Gly	Gly	His		
Asn 370	Ala	Val	Phe	Asn	Phe	Pro 375	Pro	Asn	Gly	Thr	His 380	Ser	Trp	Glu	Tyr		
Trp	Gly	Ala	Gln	Leu	Asn	Ala	Met	Lys	Gly	Asp	Leu	Gln	Ser	Ser	Leu		

385

390

395

400

Gly Ala Gly

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<213> Artificial Sequence

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36

<210> 6

<211> 26

<212> DNA

<213> Artificial Sequence

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<223> Primer OPBR-28

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<210> 7

<211> 32

<212> DNA

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32

<210> 8

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Primer OPBR-3

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27

<210> 9

<211> 30

<212> DNA

<213> Artificial Sequence

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 <223> Primer OPBR-75

 <400> 9
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 <210> 10
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 <210> 11
 <211> 44
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 <210> 12
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